Reviewer’s report

Title: Elevated exhaled acetone concentration in stage C heart failure patients with diabetes mellitus

Version: 0 Date: 30 Jul 2017

Reviewer: Pier Paolo Bassareo

Reviewer’s report:

The Authors have evaluated the exhaled acetone concentration in patients with diabetes and type C heart failure versus those diabetic with heart failure types A and B. The paper is interesting, clear and well written. I have some suggestions, as follows,

- Introduction: it is a little bit short and needs to be enlarged. For example, exhaled acetone may be detected also in patients with lung cancer as well as allergic asthma. In this respect cite Bassareo PP, et al. J Cardiovasc Med (Hagerstown). 2016 May;17 Suppl 1:S55-63 and Fulcher YG, et al. PloS One 2016; 11: e0164394, respectively. I Again, in the Methods subparagraph (exclusion criteria) specify that the enrolled patients were not suffering from the above stated pathologies, if so;

- Methods, lines 5 and 27: regarding heart failure classification in subtypes A, B and C a reference is needed, since several other classifications are possible worldwide

- Methods: the HF etiologies in the enrolled patients are a lot, so that it seems that they represent a very heterogeneous group. It may be a bias which had influenced your findings and should be addressed in the Limitation section at the end of the paper;

- Methods: clarify better the quality of the intaken food, since another influence would it be possible. Furthermore, did the two subgroups eat the same kind of food?

- Methods, page 5, lines 8-29: was the mentioned method to evaluate acetone in the breath previously validated? If so, a reference is strongly needed, please;

- Echocardiography: how about diastolic funtion? It has not been reported neither in the text nor in Table 1. There were patients suffering from heart failure with preserved ejection fraction and abnormal diastolic function?


Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

NONE
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.